

List No. 6 of Nebulae discovered at the Lowe Observatory, Echo Mountain, California. By Lewis Swift.*

No.	Date. 1897	R.A.			Dec.			Descriptions.
		h	m	s	°	'	"	
1	Dec. 25	2	11	10	-31	39	15	pF, pS, R, distant D * nf.
2	22	2	25	45	-34	42	0	eeeF, S, R, D * nearly p, np of 2.
3	22	2	26	0	-34	41	42	eF, eS, R, F * nr n.D * np, sf of 2.
4	22	2	26	15	-36	28	55	pB, pS, vE.
5	22	2	37	0	-28	37	0	eeF, S, R, 3 D stars nf, each about 7".
6	22	2	40	35	-28	22	35	eeF, S, R, D * np.
7	22	3	7	30	-25	42	0	eeF, S, R, 2 f stars near sp point to it.
8	26	3	35	40	-27	11	10	eF, eS, 1E. * close nf, stellar.
9	26	3	50	40	-28	26	15	eF, S, R, F * in contact nf.
10	23	4	8	30	-32	49	48	vF, v, S, R, partial resolvability suspected. 1531-2 in field.
11	26	4	52	0	-28	41	35	eeeF, pL, iR, D * 24 ^s f point to it.
12	Nov. 30	5	2	30	-20	37	15	eeeF, pS, bet 2 stars, eeedif. Close to eeeF D *
13	Dec. 26	5	15	10	-25	11	30	eeeF, vS, R, 7 ^m * 15 ^s p. ls nearly obliterates it eeedif.
14	1	5	30	0	-23	36	30	eeF, pS, R, 7 ^m * close f, sf of 1980.
15	Nov. 30	5	44	0	-30	31	55	eeeF, pS, R, F * np, sev B st sf, 3 st n curved.
16	Dec. 1	5	53	0	-23	11	30	pB, pS, R, in vacancy, sev B st f.
17	1	5	56	45	-23	41	30	B, L, R, bet a * nf and v wide D * np.
18	26	6	1	5	-27	51	50	vF, pS, 1E, * in contact nf, n end like a brush.
19	28	9	18	10	-32	2	55	pF, cS, vE, 10 ^m * close sp.
20	28	9	54	5	-26	42	35	eeeF, eeS, R, eF D * close S, eeedif, 3078 in field.
21	28	10	11	20	-33	3	10	eeF, pS, iR, in centre of trapezium.
22	30	10	16	38	-33	46	15	vF, cS, R, 9 ^m * p close f.
23	30	10	24	30	-35	3	15	eeeF, eeS, R, eF, * in contact S, p of 2.
24	30	10	35	12	-35	31	35	eeeF, eeS, R, eF, * in contact S, f of 2.
25	29	10	36	0	-35	5	25	eeeF, eS, R, eeF D * near S.

Notes to numbers 23 and 24.

Here are two nebulae singularly placed whose descriptions, as will be seen, are identical in every particular. I ran across a very faint nebula which I found was N.G.C. No. 3267. Near following was an exceedingly faint and very close double star, which, with a power of 132, looked as if the north one was

* Lists Nos. 2, 3 and 4 will be found in *Monthly Notices*, vol. lvii. pp. 629, 631, and vol. lviii. p. 18; Lists Nos. 1 and 5 in the *Astronomical Journal*, Nos. 388, p. 27, and 422 p. 111.

an exceedingly small nebula of unimagined faintness. With a power of 200 my suspicion that it was not a star was confirmed.

In a few minutes I ran across another, which in every particular was exactly like it, both being north of its companion star, and of the same distance apart about 4', and of the same size and faintness. But for the excellent seeing and superiority of my periscopic eyepiece for revealing faint nebulae, they would have escaped detection. If they are as distant as their companion stars, they must vastly exceed in volume the orbit of Neptune, and yet are self-luminous.

*List No. 7 of Nebulae discovered at the Lowe Observatory,
Echo Mountain, California. By Lewis Swift.*

No.	Date.	R. A.			Dec.			Description.
		h	m	s	°	'	"	
1	1898. Jan. 22	9	23	0	-42	24	30	pB, S, R, 7 ^m * nf, D * p.
2	1897. Dec. 30	9	45	0	-32	23	5	pB, pS, eeE, spindle, 7 ^m * np, np of 2. Not 3038.
	30	9	45	35	-32	25	5	eeF, eS, 3F st close f, sf of 2.
4	30	9	52	32	-31	48	0	vF, S, R, 7½ ^m * np, 2 or 3 Fst near.
5	30	10	24	30	-35	3	15	eeeF, eeS, R, eF * in contact sp of 2.
6	1898. Jan. 1	10	26	3	-28	12	30	pF, vS, R, trapezium near sp.
7	1	10	27	10	-29	52	35	eeeF, pL, R, D * nr sf, * with dist comp. f and p.
8	1897. Dec. 30	10	35	12	-35	31	35	eeeF, eeS, R, eF * in contact sf of 2.
9	1898. Jan. 1	11	17	0	-28	27	30	pB, pS, R, 10 ^m * close n little f, 7 ^m * f.
10	1897. Dec. 29	11	49	35	-37	21	5	eF, vS, 7 ^m * sp.
11	30	12	0	30	-27	22	45	vF, L, 1E, 8 ^m * nr f, np of 2.
12	1898. Jan. 1	12	0	35	-27	24	25	eeeF, pL, eE, 3 8 ^m st f, sf of 2.
13	31	12	3	25	-31	2	15	pB, vS, * close sf, vE 45°.
14	1	12	14	28	-25	37	15	pB, S, R, bet 4 st sf and 8 ^m * np.
15	30	12	18	45	-39	14	0	pF, vS, R, close p of 4373. See note.
16	1	12	20	0	-25	30	15	eF, vS, R, bet 7 ^m * sf and 8 ^m * np, v dif.
17	30	12	22	5	-38	48	50	pB, pL, R, 7 ^m * with dist comp. near p.
18	1	12	45	0	-25	22	15	eeeF, S, R, 8 ^m * nf.
19	31	12	46	0	-29	27	35	B, S, 1E, 9 ^m * near sf.
20	31	13	11	10	-31	33	45	pB, pS, R.
21	31	13	12	5	-31	7	45	eeeF, pL, R, 9 ^m * nr sp, e dif.
22	31	13	18	25	-29	47	37	eeF, pS, R, trapezium nr sf.
23	30	13	31	0	-33	35	0	pL, pS, lbM.
24	30	13	31	10	-33	33	55	eeeF, eeS, like D *, one nebulous. Note.
25	30	13	51	35	-39	31	50	8 ^m * in eeeF nebosity. See note.